10/018812 JCC3 Factor 10 2 1 DEC 2001

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

AVENEL

International Appln. No.: PCT/FR01/01261

Filed: April 25, 2001

Attorney Dkt. No.: 01200.551

For: VEHICLE EQUIPPED WITH A SYSTEM MAKING IT POSSIBLE TO CONTROL

AN OPENABLE-PANEL REMOTELY AND SYSTEM ALLOWING THE

IMPLEMANTATION OF SUCH A CONTROL

PRELIMINARY AMENDMENT

Commissioner for Patents Washington, D.C. 20231

December 21, 2001

Sir:

Prior to the prosecution of the above-captioned application, please enter the following amendments.

IN THE ABSTRACT:

Please add the following Abstract as follows:

The invention concerns a vehicle comprising a system enabling a user to control remotely an actuating mechanism (1) connected to an opening panel, in particular a boot opening panel (8). The control system comprises means, equipping the vehicle, for controlling at least an action of the actuating mechanism, according to the movement of an object, such as a hand, vertically in a delimited control zone adjacent to the opening panel. Said movement is determined from signals obtained from at least a movement sensor (7) placed on or proximate to the opening panel and whereof the radiation pattern if fixed to delimit the control zone.

IN THE CLAIMS:

Please amend claims 3-12 as follows:

- 3. (Amended) The vehicle as claimed in claim 2, in which the speed of motion, along a favored axis (F) of the sensor (7) or along the resultant axis (R') of the sensors (7A', 7B') of the control system, which speed is determined on the basis of the signals supplied by each sensor, is utilized for the control of the actuator mechanism, in the event of the detection of a motion.
- 4. (Amended) The vehicle as claimed in claim 2, in which the distance traveled, along the favored axis (F) of the sensor (7) or along the resultant axis (R') of the sensors (7A', 7B') of the control system, which is determined on the basis of the signal supplied by each sensor, is utilized for the control of the actuator mechanism, in the event of the detection of a motion.
- 5. (Amended) The vehicle as claimed in claim 4, in which the distance traveled such as determined, along the favored axis (F) of the sensor (7) or along the resultant axis (R') of the sensors (7A', 7B') of the control system, on the basis of the signals supplied by each sensor, in the event of the detection of a motion, is utilized for travel or angular opening control purposes, at the level of the actuator mechanism.
- 6. (Amended) The vehicle as claimed in claim 5, in which the orientation of the sensor or sensors on the vehicle is fixed in such a way that the favored axis of each sensor of the control system which is associated with the actuator mechanism of an openable-panel is oriented so as to detect motions occurring in at least one of the directions corresponding respectively to the direction of opening or of closing of the openable-panel.
- 7. (Amended) The vehicle as claimed in claim 6, in which the openable-panel actuator mechanism (1) which is controlled is an openable-panel opening and/or closing electromechanical or mechanical assembly.

- 8. (Amended) The vehicle as claimed in claim 7, in which the openable-panel control system is associated with a "hands free" access device (4, 5) which controls a mechanism for locking/unlocking (2) at least one lock of an openable-panel of the vehicle.
- 9. (Amended) The vehicle as claimed in claim 8, in which the openable-panel control system acts on an actuator mechanism (1) ensuring the opening and/or the closing of an openable-panel (8 or 8'), this control system comprising one or more motion sensors (7 or 7A', 7B') disposed on the openable-panel or in proximity to the openable-panel on the vehicle.
- 10. (Amended) The vehicle as claimed in claim 9, in which the control system comprises one or more motion sensors, of the ultrasound transmitter/receiver type.
- 11. (Amended) The vehicle as claimed in claim 9, in which the control system comprises one or more motion sensors, of the microwave frequency signal transmitter/receiver type.
- 12. (Amended) The vehicle as claimed in claim 11, in which the means (3 and 7 or 7A', 7B') for controlling an openable-panel actuator mechanism (2) are designed so as to determine the control action to be effected as a function of the direction of motion as defined on the basis of the signal supplied by the sensor or sensors, preferably on the basis of a predetermined minimum threshold value of motion.

REMARKS

Claims 1-14 are pending in the application. Claims 3-12 have been amended to delete multiple dependency. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. In addition, Applicants are submitting herewith an Abstract in accordance with U.S. practice. The Abstract has been taken directly from the corresponding International Application. A clean copy of the Abstract is provided on a separate sheet of paper herewith.

The attached page is captioned "Version with markings to show changes made".

No new matter has been introduced.

Applicants believe that no fee is required for this submission. However, should a fee be due, please charge such fee to Deposit Account No. 50-0548.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

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December 21, 2001

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IN THE ABSTRACT:

Please add the following Abstract as follows:

The invention concerns a vehicle comprising a system enabling a user to control remotely an actuating mechanism (1) connected to an opening panel, in particular a boot opening panel (8). The control system comprises means, equipping the vehicle, for controlling at least an action of the actuating mechanism, according to the movement of an object, such as a hand, vertically in a delimited control zone adjacent to the opening panel. Said movement is determined from signals obtained from at least a movement sensor (7) placed on or proximate to the opening panel and whereof the radiation pattern if fixed to delimit the control zone.

IN THE CLAIMS:

Please amend claims 3-12 as follows:

- 3. (Amended) The vehicle as claimed in [one of claims 1, 2) <u>claim 2</u>, in which the speed of motion, along a favored axis (F) of the sensor (7) or along the resultant axis (R') of the sensors (7A', 7B') of the control system, which speed is determined on the basis of the signals supplied by each sensor, is utilized for the control of the actuator mechanism, in the event of the detection of a motion.
- 4. (Amended) The vehicle as claimed in [one of claims 1, 2] <u>claim 2</u>, in which the distance traveled, along the favored axis (F) of the sensor (7) or along the resultant axis (R') of the sensors (7A', 7B') of the control system, which is determined on the basis of the signal supplied by each sensor, is utilized for the control of the actuator mechanism, in the event of the detection of a motion.
- 5. (Amended) The vehicle as claimed in [one of claims 4] claim 4, in which the distance traveled such as determined, along the favored axis (F) of the sensor (7) or along the resultant axis (R') of the sensors (7A', 7B') of the control system, on the basis of the signals supplied by each sensor, in the event of the detection of a motion, is utilized for travel or angular opening control purposes, at the level of the actuator mechanism.
- 6. (Amended) The vehicle as claimed in [one of claims 1 to 5] <u>claim 5</u>, in which the orientation of the sensor or sensors on the vehicle is fixed in such a way that the favored axis of each sensor of the control system which is associated with the actuator mechanism of an openable-panel is oriented so as to detect motions occurring in at least one of the directions corresponding respectively to the direction of opening or of closing of the openable-panel.
- 7. (Amended) The vehicle as claimed in [one of claims 1 to 6] <u>claim 6</u>, in which the openable-panel actuator mechanism (1) which is controlled is an openable-panel opening and/or closing electromechanical or mechanical assembly.

- 8. (Amended) The vehicle as claimed in [one of claims 1 to 7] claim 7, in which the openable-panel control system is associated with a "hands free" access device (4, 5) which controls a mechanism for locking/unlocking (2) at least one lock of an openable-panel of the vehicle.
- 9. (Amended) The vehicle as claimed in [one of claims 1 to 8] claim 8, in which the openable-panel control system acts on an actuator mechanism (1) ensuring the opening and/or the closing of an openable-panel (8 or 8'), this control system comprising one or more motion sensors (7 or 7A', 7B') disposed on the openable-panel or in proximity to the openable-panel on the vehicle.
- 10. (Amended) The vehicle as claimed in [one of claims 1 to 9) claim 9, in which the control system comprises one or more motion sensors, of the ultrasound transmitter/receiver type.
- 11. (Amended) The vehicle as claimed in [one of claims 1 to 9] <u>claim 9</u>, in which the control system comprises one or more motion sensors, of the microwave frequency signal transmitter/receiver type.
- 12. (Amended) The vehicle as claimed in [one of claims 1 to 11] <u>claim 11</u>, in which the means (3 and 7 or 7A', 7B') for controlling an openable-panel actuator mechanism (2) are designed so as to determine the control action to be effected as a function of the direction of motion as defined on the basis of the signal supplied by the sensor or sensors, preferably on the basis of a predetermined minimum threshold value of motion.

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ABSTRACT OF THE DISCLOSURE

The invention concerns a vehicle comprising a system enabling a user to control remotely an actuating mechanism (1) connected to an opening panel, in particular a boot opening panel (8). The control system comprises means, equipping the vehicle, for controlling at least an action of the actuating mechanism, according to the movement of an object, such as a hand, vertically in a delimited control zone adjacent to the opening panel. Said movement is determined from signals obtained from at least a movement sensor (7) placed on or proximate to the opening panel and whercof the radiation pattern if fixed to delimit the control zone.